

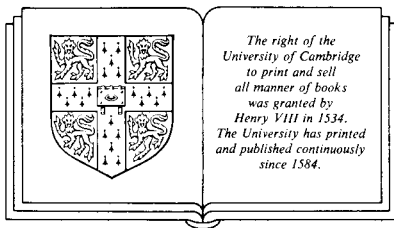
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For my Father

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Preface

This book describes models of category counts from the perspective of the social, environmental and behavioural scientist. The literature on the analysis of category counts, also variously referred to as contingency table, categorical or cross-tabulated data analysis, has developed apace since the heady era of previous decades, and the aim has been to capture the flavour of recent developments. Naturally, in a diverse subject area of growing importance and application, it is necessary to be selective, and the book draws in particular on a fairly coherent body of literature judged to be relevant to the non-statistician or applied statistician primarily interested in data analysis, without, it is hoped, disparaging the contribution made by writers on more-general or theoretical topics.

Since the focus of the book is application, particular attention is given to the analysis of real data sets. Chapter 1 contains an introduction to basic concepts and notation in the context of the two-way table and in Chapter 2 the notion of the multiway table is developed. Chapter 3 investigates the fitting of alternative models to the multiway table, with consideration given to the important topic of multiple-hypothesis tests. Chapter 4 contains a discussion of issues related to the sample design, and outlines some straightforward methods of handling data obtained by means other than simple random sampling. Chapter 5 features methods of analysing large, unwieldy tables and tables where quantitative values or scores are assigned to variable levels, and Chapter 6 integrates various themes pursued in earlier chapters in the special context of observations over time.

The book has its origins in courses I was invited to teach at summer schools of the European Consortium for Political Research at Essex University in the early 1980s. I am grateful to the staff and students of the ECPR for that stimulating experience, which provided the groundwork for much of the material in this book. I am especially grateful to Graham Upton who has, over a number of years, played an important role in shaping my ideas as to what data analysis is all about, and to Pat Altham and Professor Murray Aitkin for considerable help on various topics. May I also thank Nick Galway for helping me to understand some finer points of GENSTAT, the Mathematics Editor and his

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Preface

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Bernard Fingleton
Cambridge, 1984